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Westly Calls on Congress to Investigate Oil Pricing

Preliminary Analysis Shows Widening Gap Between California and East of the Rockies Oil Pricing

SACRAMENTO – Controller Steve Westly today called for Congress to investigate the increasing price discrepancies between California oil prices and oil prices east of the Rockies, forwarding a report that concludes there is no market explanation to supports the expanding differences.

"California receives less revenue per barrel for its oil and pays more per gallon than anywhere in the nation." Westly said. "With California's public education system facing severe funding cuts, our school children simply cannot afford to pay the price for a giveaway to oil companies."

In a letter to California's Congressional delegation, Westly called for members to join in asking the appropriate Congressional Committees to investigate the growing pricing disparity between heavy crude oil and West Texas Intermediate, a light crude oil considered a benchmark for world crude prices.

"The growth of this price differential, without adequate explanation, is a genuine cause for alarm," Westly said in the letter.

Westly also submitted a preliminary study of California crude oil pricing from IIC, Inc. The analysis examines possible explanations for recent pricing trends, including:

- Changes in crude oil supply and demand.
- Constraints in refining capacity.
- Changes in the supply and demand for refined products.
- Product market developments.

The report showed no adequate explanation.

Westly's letter highlights the importance of heavy crude oil pricing to California. The majority of crude oil produced in California is heavy. Also, heavy crude oil pricing impacts California's education fund, which receives royalties from oil produced on public lands.

In February, Westly filed a lawsuit in U.S. District Court in Washington calling on the Interior Department to remove discounts for large and small oil producers to encourage production. Westly's suit contends the Interior Department failed to show how discounts given to heavy oil producers or low producing wells were effective. California loses roughly \$8 million a year from the royalty fee reductions that California's education fund would otherwise receive.

Text of Westly's letter to the California Congressional delegation and the IIC memorandum follow.



January 18, 2005

Honorable California Congressional Delegation Member Washington, D.C.

Re: California Heavy Crude Oil Prices

Dear California Congressional Delegation Member:

Recent press reports about heavy crude oil prices prompted me to ask for a preliminary analysis of this issue as it relates to California. The attached memorandum examines the increasing gap between the price of heavy crude oil and the price of West Texas Intermediate (WTI) and that there appears to be no market explanation.

This is a very important issue for California for two reasons: First, most of the crude oil produced in California is heavy; second, a large part of California crude is produced on public lands, both state and federal. The pricing of heavy crude oil, therefore, has serious revenue consequences for the State's school fund which receives the royalties from the state lands and a share of the federal royalties.

The IIC analysis explores the possible explanations for the growing disparity: changes in the supply and demand for crude oil, constraints in refining capacity, and changes in the supply and demand for refined products. It found no adequate explanation.

While the IIC paper is a preliminary study, the evidence it cites and questions it raises require further investigation. Anomalies in heavy crude pricing must be viewed suspiciously given the long history of California oil pricing. Over many decades, the differential between the various gravities of crude oil was used as a mechanism for fictitious prices to escape the full payment of royalties owed to the state and federal government. Collusion over these price differentials was the basis of the *Long Beach* antitrust case that resulted in the State recovering over \$350 million in damages.

The growth of this price differential, without adequate explanation, is a genuine cause for alarm. I ask you to join with me in asking the appropriate Congressional Committees to investigate this issue.

Sincerely,

STEVE WESTLY
State Controller

MEMORANDUM

December 9, 2004

TO: Steve Westly

FROM: IIC, Inc.

SUBJ: California Crude Oil Pricing

We have performed a brief analysis of recent trends in the California and West Coast crude oil marketplace, including pricing trends, factors affecting prices, and general market conditions. In recent months, i.e., since September, there has been a significant widening of the gap between prices on the West Coast (for both light and heavy crudes) and prices east of the Rockies. The spread between light and heavy crude oils has increased, although generally even light crude oils on the West Coast, including Alaskan North Slope (ANS), have declined relative to the prices of east of Rockies crude oils. Changes in crude oil supplies, product demand, product prices and refinery operations do not appear to justify this relative decline in West Coast crude prices. The rest of this memorandum discusses these issues in more detail.

West Coast Price Trends

Common benchmark crude oil prices on the West Coast are the spot price of ANS, the spot price of WTI and both spot and posted prices for California crude oils. More recently imported crude oils have played a more significant role as discussed below, however such prices are not commonly quoted by major price reporting services We include the spot price of West Texas Intermediate and are not readily available. (WTI) because many contracts for the purchase of California crude oil are now pegged (with a differential) to the spot or futures price of WTI. Also WTI is considered a major benchmark for U.S. and world crude oil prices. Figure 1 shows price differences between ANS a medium gravity crude oil; WTI, a light Texas crude oil; and Midway-Sunset, a heavy California crude oil. As can be seen, in recent months the price difference between WTI on the one hand and ANS and Midway-Sunset on the other hand has widened considerably. The WTI-Midway-Sunset price difference for example, has increased from an average of \$5.80 during the period January 2002 through July 2004 to over \$10.30 over the last four months. Expressed on a dollar per degree API gravity basis (or "GPD") this is an increase from \$0.23 per degree API to \$0.42 per degree API.² ANS also

¹ We have used ChevronTexaco's posted price for 13° API Midway-Sunset in our pricing comparisons. We do not have access presently to a reliable spot price for heavy San Joaquin Valley crude, but available evidence indicates that the spot price averages \$0.15 to \$0.50 per barrel higher than the posting.

² ChevronTexaco did increase its posted price gravity differential from \$0.20 per degree API for heavy crudes in 2003 to \$0.25 per degree API in early 2004 and then to \$0.30 per degree API in June 2004.

appears to have been similarly affected. The difference between WTI and ANS rose from an average of \$1.30 per barrel between January 2002 and July 2004 to \$3.70 since August 2004. And expressed on a dollar per degree API basis, this is an increase from \$0.15 per degree to \$0.41 per degree API.

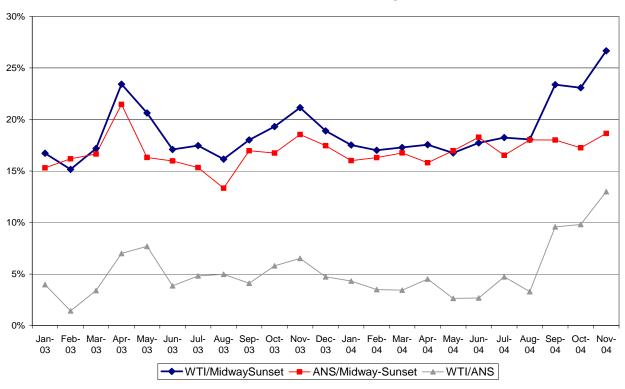
On the other hand, the difference between ANS and Midway-Sunset has increased only slightly, reflecting the general increase in absolute crude oil price levels. This is perhaps best illustrated in Figure 2 which expresses these various price differentials as a percentage of the absolute crude price which takes into consideration the rather dramatic upward movement seen in crude prices over the last few months. In the last two to three months there has been a very dramatic shift upward in the differential as a percentage of the crude oil price for both the WTI-ANS differential as well as the WTI-Midway-Sunset differential, but no such increase for the ANS-Midway-Sunset differential (in fact there is a slight decline). Since WTI is a commonly accepted benchmark crude oil price in the U.S. and is increasingly used on the West Coast to price crude oils, this increase in the differential raises questions as to its cause.

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WTI-Midway-Sunset —— ANS-Midway-Sunset — WTI-ANS

Figure 1
West Coast Price Differentials

Figure 2
Price Differentials as Percentage of Price



We have also tested whether this pricing disparity could be traced to anomalies in the pricing of WTI.³ We compared the spot price of WTI with several foreign crude oils over the past year and found that the differentials have increased somewhat in recent months. WTI prices increased about \$2.00-\$2.50 per barrel more than foreign crude oil in October, but nothing like the increase in the differential of \$4-\$6 per barrel seen between WTI and West Coast crude oils. Indeed the differential between foreign crude oil prices and California posted prices rose by about \$2.50-\$3.00 per barrel between July and November of this year. This strongly suggests that there is an issue of concern with California (and ANS)⁴ prices and the increase in Texas prices does not explain even half of the overall increase in the differential.

West Coast Supply/Demand Picture

A number of interesting trends may be observed in the West Coast supply/demand balance. The production of California crude oils continues to decline at a rapid rate, approaching 2 percent per year. Production in 2000 was approximately 850,000 barrels

³ The damage caused by Hurricane Ivan to Gulf of Mexico crude oil production caused a significant decline in local production which may have prompted an increase in Texas crude oil prices relative to other areas. This effect could cause WTI prices to rise more rapidly than other crude oils.

⁴ The data also suggest that ANS has now dropped about \$2 per barrel below parity with foreign crude oil prices.

per day (b/d) and production now is about 740,000 b/d. ANS production is also declining significantly, and California refineries particularly are consuming less ANS as it is more profitable to run it in Washington state refineries. The decline in local production has forced refiners on the West Coast and in California in particular to rely much more heavily on imports to satisfy their refining needs. ANS is more tightly controlled by three producer/refiners: BP, ExxonMobil and ConocoPhillips. As a result, less and less ANS moves on the open market, although there is still sufficient volume to provide a meaningful benchmark spot price for West Coast deliveries.

The demand for refined products, especially gasoline, continues to grow. Demand for gasoline in California, for example, is increasing at a 3-4 percent annual rate. Therefore, refineries must increase runs to the extent capacity allows and also import product to meet demand. Figure 3 shows the shift in composition of crude oils consumed in California refineries over the last several years. In 1995, imports accounted for only 9 percent of total refinery runs whereas in 2003, imported crude oil represented 34 percent of total refinery runs. At the same time, Alaskan crude declined from 41 percent to only 24 percent.

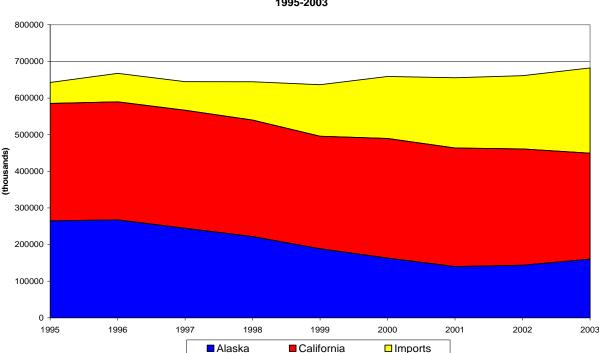


Figure 3
Oil Supply Sources to California Refineries
1995-2003

This trend has very important implications for valuing and pricing California crude oils. ANS is no longer the "marginal" supply of crude to the West Coast – imported crude represents the type of crude oil that is used to fill out refinery runs on a marginal basis and thus serves as a pricing benchmark for other crude oils including

California crude oils. We examined the types of imported crude oil flowing into the West Coast to see if it might explain the decline in prices including whether imports were primarily heavy crude oils that might be depressing the prices of California heavy crude oils. There are no publicly available sources of data on the market prices of imported crude oils landed on the West Coast, although with further research we could develop some pricing benchmarks.⁵

EIA provides data on the country of origin on crude oil imports to the West Coast (PADD V) and these data do not suggest that there has been a large influx of heavy crudes into the West Coast. Saudi Arabia and Iraq account for 46 percent of foreign imports into the West Coast. These are all relatively light, sour crude oils. Ecuador and Argentina account for another 20 percent, Canada 10 percent and Mexico and Indonesia 5 percent each. Of these countries, Mexico is the only country that exports primarily a heavy crude stream (Maya 20° API); Ecuador and Argentina have several export streams, including a moderately heavy stream (in the 26-28° API range) and Canada and Indonesia send only light crude oils into the West Coast. Furthermore, Mexican imports into the West Coast have been declining for the last two years suggesting that a surplus of heavy crude is not to blame for the relative decline in California prices.

Review of data on stocks (inventories) of crude oil do indicate a decline during the second half of 2004 which largely explains the significant increase in crude oil prices observed during that same time period. Stocks declined throughout the U.S. including the West Coast beginning in May 2004, and there is no evidence that in recent months stocks have been any higher on the West Coast relative to the rest of the country that could explain the observed increase in the price differential.

Refining Operations and Product Prices

We have also examined the nature of refining operations on the West Coast as well as product prices to see if these factors might explain the increasing spread in West Coast prices relative to the rest of the U.S. High rates of refinery utilization, particularly for downstream units (cokers and crackers) might explain a relative decline in heavy crude prices as could an expansion in the light-heavy refined product price differential (often referred to as the "clean-dirty spread").

Refining capacity utilization data are published by EIA, but are several months out of date. Current reports run only through September, and they do not indicate any abnormally high trends in capacity utilization. Cracking capacity was at 100 percent utilization during the summer months and coking capacity utilization ran at about 97 percent utilization between May and August. This high rate of utilization would be expected to meet gasoline demands during peak driving months, and it would be during

⁵ One recent report (June 2004) by Purvin and Gertz suggests that by 2002 the price of ANS had risen to parity with the price of imported crude oils into the West Coast. As noted above we believe this parity has been lost in recent months, and ANS is now priced about \$2 per barrel below foreign crude oils landed on the West Coast.

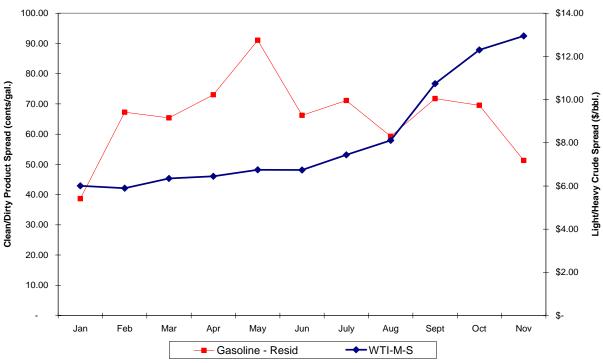
this period of time when gasoline prices might be expected to rise more rapidly than other products. Interestingly, there was a slight decline in both coking and cracking capacity utilization in September – the month when, as Figures 1 and 2 indicate, the price differential rapidly expanded. Without more recent data it is difficult to determine whether this trend continued into October. However, distillation capacity utilization has fallen in October and November relative to the summer months on the West Coast which may be some indication that there is no capacity constraint.

The yield of heavy residual fuel oil has continued to decline in California refineries. This is an indication that refineries are better equipped to produce clean products from heavy crude oils and is also an indication that the slate of crude oils being run in California refineries has become lighter. Resid yield as a percentage of total refined products produced has dropped from 4.4 percent in 1999 to 2.7 percent in 2003. Interestingly gasoline yield (including blending components) has increased slightly during the same period (from about 52 percent to about 57 percent. This would not be expected to put undue pressure on the clean-dirty spread unless others factors may be at work.

Finally, we examined the relationship between spot wholesale gasoline prices and residual fuel oil prices in California to determine if the clean-dirty spread has indeed expanded in recent months. Figure 4 presents the trend in the clean-dirty spread with the crude oil price differential between WTI and Midway-Sunset. As can be seen while the crude price differential between a light Texas crude (WTI) and a heavy California crude has expanded considerably, the clean-dirty spread has actually contracted in recent months. Thus refining operations as well as the product market do not explain this significant increase in the price spread between WTI and California heavy crudes (as well as ANS prices).

⁶ Oil and Gas Journal does publish distillation capacity utilization data on a timely basis. They do not provide downstream capacity utilization data.

Figure 4
Comparison of Crude and Product Spreads
2004



Conclusion

The available data we have reviewed does not support the rapid expansion in the price differential observed between WTI and West Coast crude oils (ANS and Midway-Sunset as examples). We have reviewed data on supply/demand trends, refinery operations and product market developments, and none of these factors explains the increase in the price differential between east of Rockies crude oils and West Coast crude oils. The increasing significance of crude oil imports into the West Coast could be explored in more detail, however available evidence indicates that these imports are not the reason for this increase in the price differential.